

**Pending Claims**

1. (Previously Presented) A system for maintaining an open airway, comprising:  
a mouthpiece adapted to substantially seal an oral cavity within a patient's mouth and adapted to be coupled to a negative pressure generator that is effective to create a negative pressure within the oral cavity to prevent the patient's soft tissues of the upper airway from collapsing; and  
a nasal mask adapted to deliver gases through the patient's nasal passageway.
2. (Cancelled.)
3. (Original) The system of claim 1, wherein the mouthpiece is effective to prevent the patient's soft tissues of the upper airway from collapsing without impinging on the tongue.
4. (Original) The system of claim 1, wherein the mouthpiece includes upper and lower portions that conform to an anatomy of the patient's upper and lower dental structures.
5. (Original) The system of claim 1, wherein the mouthpiece includes a hollow elongate member extending therefrom and coupled to a negative pressure generator.
6. (Original) The system of claim 1, wherein the nasal mask is coupled to the mouthpiece.
7. (Original) The system of claim 1, further comprising a negative pressure generator.
8. (Original) The system of claim 1, wherein the nasal mask is coupled to a device selected from the group consisting of a continuous positive airway pressure device, a mechanical ventilation device, and a positive end expiratory pressure device.
9. (Previously Presented) The system of claim 1, wherein the nasal mask includes first and second tubular members extending therethrough and in communication with the patient's nasal passageway, the first tubular member being adapted to deliver gases through the

patient's nasal passageway and the second tubular member being adapted to allow a gas sample to be taken from the nasal passageway.

10. (Previously Presented) A system for maintaining an open airway, comprising:
  - a mouthpiece adapted to substantially seal an oral cavity within a patient's mouth and including an outlet port positioned during use adjacent the opening of the patient's mouth, the outlet port being adapted to couple to a negative pressure generator to create a negative pressure within the oral cavity; and
  - a tubular member adapted to be disposed over a patient's nose and to deliver gases to the patient's nasal airway.
11. (Previously Presented) The system of claim 10, wherein the tubular member is coupled to the mouthpiece.
12. (Previously Presented) The system of claim 10, wherein the mouthpiece is effective to prevent the patient's soft tissues of the upper airway from collapsing without impinging on the tongue.
13. (Original) The system of claim 10, further comprising a negative pressure generator.
14. (Original) The system of claim 10, wherein the tubular member comprises a nasal mask that is adapted to form a seal with the patient's nasal airway.
15. (Original) The system of claim 14, wherein the nasal mask is coupled to a device selected from the group consisting of a continuous positive airway pressure device, a mechanical ventilation device, and a positive end expiratory pressure device.
16. (Original) The system of claim 10, further comprising a second tubular member in communication with the patient's nasal passageway for allowing an gas sample to be taken from the nasal passageway.

17. (Previously Presented) A method for maintaining an open airway, comprising:  
forming a substantially sealed oral cavity within a patient's mouth;  
creating a negative pressure within the substantially sealed oral cavity effective to prevent the patient's soft tissues of the upper airway from collapsing; and  
delivering gases through the patient's nasal passageway.
18. (Previously Presented) The method of claim 17, wherein a mouthpiece is used to form the substantially sealed oral cavity.
19. (Previously Presented) The method of claim 18, wherein the mouthpiece is adapted to allow normal swallowing and breathing.
20. (Previously Presented) The method of claim 18, wherein the mouthpiece does not impinge upon the tongue.
21. (Previously Presented) The method of claim 18, wherein the mouthpiece includes upper and lower portions that conform to an anatomy of the patient's upper and lower dental structures.
22. (Previously Presented) The method of claim 21, wherein the upper and lower portions are adapted to maintain the upper and lower dental structures at a fixed distance from one another.
23. (Previously Presented) The method of claim 18, wherein the mouthpiece is adapted to expand the size of the substantially sealed oral cavity in the mouth.
24. (Previously Presented) The method of claim 18, further comprising a hollow elongate member having a first end coupled to the mouthpiece and in communication with the substantially sealed oral cavity, and a second end coupled to the negative pressure generator.

25. (Original) The method of claim 24, wherein the first end of the hollow elongate member is coupled to the mouthpiece adjacent an opening to the patient's mouth.
26. (Previously Presented) The method of claim 18, wherein the mouthpiece includes a sidewall adapted to be positioned over an opening of the patient's mouth, and a positioning member adapted to fit within the mouth to maintain the mouthpiece at a fixed position.
27. (Original) The method of claim 24, wherein the negative pressure generator operates at a pressure in the range of about 0 cm to -60 cm of water.
28. (Original) The method of claim 24, wherein the negative pressure generator removes air from the substantially sealed cavity at a rate that is in the range of about 0 cc/minute to 50 cc/minute.
29. (Previously Presented) The method of claim 17, wherein the negative pressure created within the substantially sealed oral cavity is further effective to remove secretions therefrom.